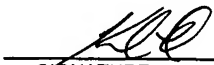


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER 2002-29-US U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>107520635</b>
INTERNATIONAL APPLICATION NO. PCT/US2003/022579	INTERNATIONAL FILING DATE 18 July 2003	PRIORITY DATE CLAIMED 19 July 2002
TITLE OF INVENTION LIQUID FLOW CONTROLLER AND PRECISION DISPENSE APPARATUS AND SYSTEM		
APPLICANT(S) FOR DO/EO/US <u>Marc Laverdiere, Robert F. McLoughlin, George Gonnella, Iraj Gashgaree and Jennifer Morris</u>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input checked="" type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
Items 11 to 20 below concern document(s) or information included:		
<ol style="list-style-type: none"> <li>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input type="checkbox"/> A preliminary amendment.</li> <li>14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li>20. <input checked="" type="checkbox"/> Other items or information:               <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>1. Copy of the International Search Report.</span> <span>3. Form PCT/IB/304.</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>2. Copy of the Notification of a change.</span> <span>4. Form PCT/IB/308.</span> </div> </li> </ol>		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/520635</b>		INTERNATIONAL APPLICATION NO. PCT/US2003/022579		ATTORNEY'S DOCKET NUMBER 2002-29US	
21. The following fees are submitted:				Applicant use	Office use only
<input checked="" type="checkbox"/> a) Basic national fee..... \$300.00				\$	
<input checked="" type="checkbox"/> b) Examination fee..... \$200.00				\$	
<input checked="" type="checkbox"/> c) Search fee..... \$500.00				\$	
<b>TOTAL OF ABOVE CALCULATIONS = \$1000.00</b>				\$ 1,000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250.00	\$ 0	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	52 - 20 =	32	x \$50.00	\$ 1,600.00	
Independent claims	10 - 3 =	7	x \$200.00	\$ 1,400.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$ -	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$ 4,130.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$ -	
<b>SUBTOTAL =</b>				\$ 4,130.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$ -	
<b>TOTAL NATIONAL FEE =</b>				\$ 4,130.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$ -	
<b>TOTAL FEES ENCLOSED =</b>				\$ 4,130.00	
Amount to be refunded:					\$
Amount to be charged					\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>4,130.00</u> to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>14-0930</u> . A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
<b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO: CUSTOMER NO: 42754  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">           Niels &amp; Lemack            176 E. Main Street - Suite 7            Westboro, MA 01581         </div> <div style="width: 45%; text-align: right;"> <div style="text-align: center;">             SIGNATURE         </div> <div style="text-align: center;">           Kevin S. Lemack            NAME         </div> <div style="text-align: center;">           32,579            REGISTRATION NUMBER         </div> </div> </div>					

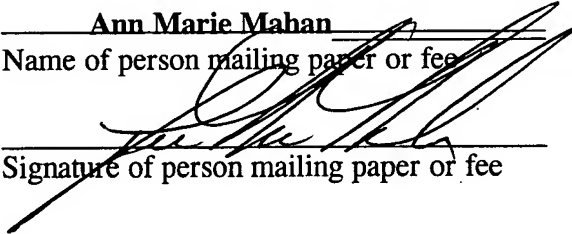
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Marc Laverdiere et al.  
Serial No. : Not yet assigned (PCT/US2003/022579)  
Filed : Herewith By Express Mail (18 July 2003)  
For : LIQUID FLOW CONTROLLER AND PRECISION DISPENSE  
APPARATUS AND SYSTEM  
Examiner : Not yet assigned  
Art Unit : Not yet assigned  
Attorney  
Docket No. : 2002-29PCT-US  
Type of paper : Copy of the Notification Concerning A Change

"EXPRESS MAIL" MAILING LABEL NO ER 908004691 US  
DATE OF DEPOSIT: January 7, 2005

I hereby certify that this patent application is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, P.O. Box 1450, Mail Stop: PCT, Alexandria, VA 22313-1450.

Ann Marie Mahan  
Name of person mailing paper or fee

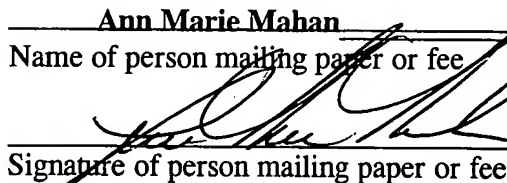
  
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Examiner : Not yet assigned  
Art Unit : Not yet assigned  
Attorney  
Docket No. : 2002-29PCT-US  
Type of paper : Copy of the Notice Informing The Applicant of the  
Communication of the International Application to the Designated  
Offices (Form PCT/IB/308)

"EXPRESS MAIL" MAILING LABEL NO ER 908004691 US  
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Signature of person mailing paper or fee

10/520635

JTV Rec'd PCT/PTO 07 JAN 2005

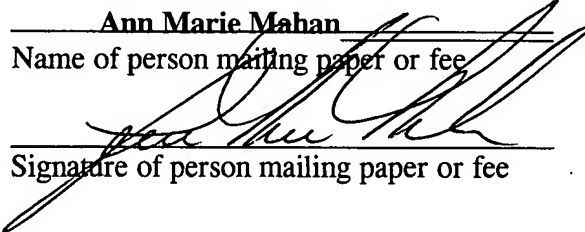
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APPARATUS AND SYSTEM  
Examiner : Not yet assigned  
Art Unit : Not yet assigned  
Attorney  
Docket No. : 2002-29PCT-US  
Type of paper : Transmittal Letter to the United States Designated/Elected Office  
(DO/EO/US) Concerning A Submission Under 35 U.S.C. 371

"EXPRESS MAIL" MAILING LABEL NO ER 908004691 US  
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Ann Marie Mahan  
Name of person mailing paper or fee

  
Signature of person mailing paper or fee

Attorney Docket No. 2002-29-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Marc Laverdiere, Robert F. McLoughlin, George Gonnella,  
Iraj Gashgaei and Jennifer Marrs**

For: **LIQUID FLOW CONTROLLER AND PRECISION DISPENSE APPARATUS AND  
SYSTEM**

Commissioner for Patents  
P.O. Box: 1450  
Alexandria, VA 22313-1450

Sir: LETTER


The above-identified applicants enclose for filing the national phase of a PCT patent application (PCT/US2003/022579) entitled "**LIQUID FLOW CONTROLLER AND PRECISION DISPENSE APPARATUS AND SYSTEM**". Said attached PCT patent application includes (1) Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Filing Under 35 U.S.C. 371 (2-Pages); (2) Check in the amount of \$4,130.00 in payment of the Filing Fee; (3) Copy of the International Search Report (3-Pages); (4) Copy of the Notification of the Recording of a Change (1-Page); (5) Copy of the Notice Informing the Applicant of the Communication of the International Application to the Designated Offices (Form PCT/IB/308)(1-Page) and (6) Copy of the Notification Concerning Submission of Priority Documents (Form PCT/IB/304)(1-Page).

**The executed Declaration will be submitted in due course.**

All correspondence concerning this application should be mailed to: **CUSTOMER NO: 42754**

**Kevin S. Lemack  
Niels & Lemack  
176 E. Main Street - Suite 7  
Westboro, Massachusetts 01581**

Respectfully submitted,

  
Kevin S. Lemack  
Attorney for Applicant  
Registration No. 32,579

Date: January 7, 2005

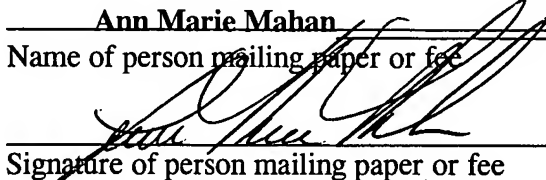
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APPARATUS AND SYSTEM  
Examiner : Not yet assigned  
Art Unit : Not yet assigned  
Attorney  
Docket No. : 2002-29PCT-US  
Type of paper : Copy of the International Search Report

"EXPRESS MAIL" MAILING LABEL NO ER 908004691 US  
DATE OF DEPOSIT: January 7, 2005

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